गैर-पारंपरिक ऊर्जा स्रोत राज्य मंत्री (श्री एस. कृष्ण कुमार) : (क) और (ख) कच्छ जिले में मुन्द्रा और कुकया में अब तक कोई पवन फार्म परियोजना स्थापित नहीं की गई है । तथापि हाल ही में पवन सर्वेक्षणों से इन स्थानों पर पवन विद्युत के उत्पादन के लिए अनुकूल संभाव्यता की संभावना का पता चला है।

(ग) और (घ) गुजरात सरकार द्वारा ऐसी कोई योजना प्रस्तुत नहीं की गई है।

Solar energy heating systems

479. SHRI V. NARAYANASAMY: Will the PRIME MINISTER be pleased to state:

(a) whether the Central and State Governments plan to set an example in the use of green technologies by making installation of solar energy heating systems in all their functional buildings mandatory;

(b) if so, by when it is going to be implemented by Government; and

(c) the approximate cost involved in using this solar energy on a mass scale?

THE MINISTER OF STATE IN THE MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES (SHRI S. KRISHNA KUMAR): (a) Yes, Sir.

(b) The Government has accepted the recommendation of the Group, constituted by it on "Installation of Solar Assisted Water Heating Systems", for mandatory installation of solar assisted water heating systems in Central Government functional buildings, namely hotels and hospitals. It has directed the Central Public Works Department to draw an Action Plan for the implementation of the recommendation. The Central Government has also written to the State Govts. to consider issuing directives to local bodies under their control for modifying building byelaws to provide for mandatory installation of solar water heating systems in respect of hotels and hospitals in the Commercial sector .

(c) At present, the approximate cost for the installation of solar water heater varies from Rs. 100 to Rs. 130 per litre of capacity depending on termerature of the hot water required and the site of the installation. This cost is expected to significantly reduce with mass scale utilisation.

Utilization of solar energy in the country

480. SHRI SURESH PACHOURI: Will the PRIME MINISTER be pleased to state:

(a) whether India has brought the solar power down to earth to put cheer into remote villages by providing them water and power;

(b) whether varieties of systems have been developed ranging from supply of drinking water to providing sophisticated power pack to the Indian Scientific expeadition team to Antertica where it is exploring the possibility of krill fishing;

(c) whether the thrust of the research efforts in the country in the solar energy has been directed both towards solar thermal applications and direct conservation of solar electricity;

(d) to what extent, the utilization of solar energy is being made in the country;

(e) whether an action plan has been formulated by the Ministry?

(f) whether during the Eighth Plan, the solar energy will be upgraded to 2,000 MW from 600 MW; and

(g) if so, what are the other details of the proposed action Plan?

THE MINISTER OF STATE IN THE MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES (SHRI S. KRISHNA KUMAR): (a) and (b) Yes, Sir. The Government has been implementing solar energy programmes in villages in the country. Under these programmes, solar photovoltaic systems

such as solar photovoltaic street lights, domestic lights, community lights/TV, solar lanterns, water pumping systems, small village level power plants; and solar thermal systems such as solar water heating system, solar cookers, solar stills, solar driers, etc. are being installed in the villages. The 12th Indian Scientific Expedition team to Antarctica have used an experimental power pack on the basis of chemical technology developed by the Defence Meterological and Research Lab, Hyderabad.

(c) Yes, Sir.

(b) An agreegate capacity of about 9 MW Solar Photovoltaic Systems for electricity generation have been installed in the country. These systems include Street lights, domestic lights, solar lanterns, small village level power plants, Water pumping systems, Rural telecommunication systems, railway signalling, microwave repeater stations, and for other applications. About 2,88,000 sq. metres of collector area of various solar thermal systems for water heating, air heating and desalination have so far been installed in country. In addition, 3.40,000 solar cookers have been sold.

(e) to (g) Yes, Sir. The Ministry of Non-Conventional Energy Sources has drawn a Strategy and Action Plan for the entire Renewable Energy Sector, Including solar energy. The Details of the Action Plan are given in the enclosed statement.

Statement

Strategy and action plan at a glance

S. No.	Programme	Physical targets/goals for the 8th Plan	
		As originally envisaged during 8th Plan	Revised Goals* during 8th Plan
1	2	3	4
A.	*Power Generation*		
1.	Wind Power	100 MW@	500 MW
2.	Small Hydro Power	200 MW@	600 MW
3.	Solar Photovoltaic	3 MW	25 MW
	(a) Solar Lanterns	4 lakh Nos.	
	(b) Solar Photovoltaic Power Packs	400 Nos.	
4.	Solar Thermal Power	..	30 MW
5.	Biomass/Bioenergy	300 MW@	800 MW
	(a) Biomass Gasification	50 MW	
	(b) Combusion & Cogeneration	300 MW	
	(c) Urban and Municipal Wastes	100 MW	
	(d) Recycling from Industrial wastes	300 MW	
	(e) Biomass Densification (Briquitting)	50 MW	
		603 MW	1955 MW (Total Power) (i.e. say 2000 MW)

Sl. No.	Programme	Physical target goals for the 8th Plan As originally envisaged	Revised during 8rh plan Ooals§
B.	*Process Heat and Cooking Energy.*		
6.	Solar Thermal Systems . . .	2.75 lakh sq.m.	11.00 lakh sq.m.
7.	Biogas	7.50 lakh nos.	10 lakh nos. $
8.	Improved Chulha	100 lakh nos.	180 lakh nos. $
9.	Solar Cookers	3.0 lakhs nos.	7.8 lakh nos.

G—Includes private sector

*—Subject to the mobilization of additional financial resources.

$—Coverage of all potential beneficiaries in foreseable future.

Amount spent on the advertisements in the newspapers

481. SHRI MOHAMMED AFZAL *alias* MEEM AFZAL: Will the PRIME MINISTER be pleased to state:

(a) what is the amount spent by Ministry of Non-Conventional Energy Souces on advertisements given to the newspapers during the years 1992-93 and 1993-94; and

(b) what are the details of amounts paid to the Newspapers, language wise, for advertisements during this period?

THE MINISTER OF STATE IN THE MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES (SHRI S. KRISHNA KUMAR): (a) and (b) A statement showing the details of amount paid to Newspapers language-wise for advertisements during the year 1992-93 and 1993-94 is placed on the table of the House.

Statement

Statement showing the details of amount paid to newspapers language-wise for advertisements

1992-93	
1. English	10,98,957.00
2. Hindi	11,20,219.00
3. Kridu . . .	49,223.00
4. Punjabi . . .	37,844.00
5. Marathi . . .	37,497.00
6. Gujarat . . .	49,220.00
7. Assamese . . .	14,110.00
8. Bengali . . .	31,246.00
9. Oriya . . .	10,710.00
10. Tamil . . .	23,069.00
11. Telugu . . .	27,098.00
12. Malayalam .	22,984.00
13. Kannada . . .	19,618.00
TOTAL . . .	25,41,796.00

1993-94	
1. English . . .	9,74,569.00
2. Hindi . . .	7,42,424.00
3. Urdu . . .	63,614.00
4. Punjabi . . .	52,955.00
5. Marathi . . .	1,12,513.00
6. Gujarati . . .	1,20,076.00
7. Sindhi . .	9,303.00
8. Assamese . . .	43,862.00
9. Bengali . . .	1,83,907.00
10. Oriya . . .	43,163.00
11. Tamil . . .	64,228.00